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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/222,340

12/28/1998

WILLIAM F. TERRELL

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3304

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7590

10/27/2006

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EXAMINER

MANIWANG, JOSEPH R

ART UNIT

PAPER NUMBER

2144

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/222,340

Applicant(s)

TERRELL ET AL.

Examiner

Joseph R. Maniwang

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application has been reassigned to Examiner Joseph R. Maniwang.
2. Applicant is advised that the Notice of Allowance mailed 01/20/06 is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.
3. PROSECUTION IS HEREBY REOPENED. The claims are rejected as set forth below.
4. To avoid abandonment of the application, appellant must exercise one of the following two options:
 - (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
 - (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.
5. A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-11, 13, 14, and 16-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman et al. (U.S. Patent No. 6,341,130), hereinafter referred to as Lakshman, in view of Barzilai et al. ("Design and Implementation of an RSVP-Based Quality of Service Architecture for an Integrated Services Internet", 1998), hereinafter referred to as Barzilai, and in further view of Gai et al. (U.S. Pat. No. 6,651,101), hereinafter referred to as Gai.

8. Regarding claim 1, Lakshman discloses the invention substantially as claimed. Lakshman discloses *an apparatus adapted to facilitate communications between a client device and a remote device, comprising a network interface including (i) filters including at least one filter being triggered to denote when a received packet satisfies filter criteria corresponding to an admission policy (filter rules) related to differentiated service levels and associated with the at least one filter* [see Lakshman, Col. 1, lines 53-67, Col. 2, lines 1-34, Col. 3, lines 53-55, Col. 6, lines 15-19, Col. 9, lines 20-29] *and (ii) a classifier, communicatively coupled to the filters, to classify and mark one of the service levels associates with the received data packet in response to satisfying the filter criteria associated with the at least one filter* [see Lakshman, Col. 53-67]; *and a*

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controller [see Lakshman, Figure, 1, item 245]. However, Lakshman does not explicitly disclose a controller coupled to the network interface, to dynamically create and remove the filters controlling access to the different service levels based, at least in part, on an admission profile of the admission policy.

9. In the same field of endeavor, Barzilai discloses (e.g., a system for traffic policing, traffic shaping and buffer management for QOS support). Barzilai discloses and a controller coupled to the network interface, to dynamically create and remove the filters controlling access to the different service levels based, at least in part, on an admissions profile (Barzilai teaches the QOS manager functions a control plane component primarily responsible for the creation, modification, and removal of reservation filters associated with different flows as well as admission control. Also, Barzilai teaches the improvement of statically compiled packet filter by utilizing a general classifier for real-time packet forwarding and packet filters that provide general and flexible classification of incoming packets to application endpoints and dynamic code generation techniques that are applied to realized very efficient packet filters), [see Barzilai, page 400, 2nd column, 4th paragraph, page 411, 2nd column, 2nd paragraph].

10. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barzilai teaches of a system for traffic policing, traffic shaping and buffer management for QOS support with the teachings of Lakshman, for the purpose of providing a system that supports integrated services on the Internet, network routers as well as end hosts in order to further enhance classification of traffic and to handle data packets from different flows

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as well as having a system that fully supports TCP/IP stack [see Barzilai, page 397, column 2]. However, the specific of dynamic code generation in regards to dynamic filtering are not explicitly disclosed by Lakshman-Barzilai.

11. In the same field of endeavor, Gai discloses a method and system for identifying specific traffic flows and for applying quality of service treatments to such flows (e.g., dynamic filtering) [see abstract, sections 1, 2.1 and 3.1].

12. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Gai's teachings of dynamic code generation for the creation of dynamic filtering with the teachings of Lakshman-Barzilai, for the purpose of providing an improvement on traditional packet filtering, through the use of dynamic code generation [see Gai, abstract]. Barzilai provides motivation to combine by stating the uses of dynamic code generation techniques that are applied provide for very efficient packet filtering [see Barzalia, pg. 411]. By this rationale claim 1 is rejected.

13. Regarding claim 2, Lakshman-Barzilai and Gai further discloses wherein the at least one filter, when triggered, initiate an admission control decision preventing allocation of service level resources which are not yet required or authorized [see Barzilai, page 410, 2nd paragraph]. The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 2. By this rationale claim 2 is rejected.

14. Regarding claim 3, Lakshman-Barzilai and Gai further discloses wherein each filter is triggered by information contained within received the data packet (Barzilai

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teaches that the address is used during data transfer to efficiently identify the reservation structure to use for policing and shaping traffic on a particular data socket), [see Barzilai, Page 404, 1st Col., 2nd paragraph]. The same motivation that was utilized in the combination of claims 1 and 2 applies equally as well to claim 3. By this rationale claim 3 is rejected.

15. Regarding claim 4, Lakshman-Barzilai and Gai further discloses *wherein each filter is triggered by one or both of packet source information and packet destination information* [see Lakshman, Col. 2, lines 10-14]. By this rationale claim 4 is rejected.

16. Regarding claim 5, Lakshman-Barzilai and Gai discloses the invention substantially as claimed. However, Lakshman-Barzilai does not explicitly disclose wherein the admission profile is stored in a communicatively coupled remote device.

17. In the same field of endeavor, Gai discloses (e.g., identifying network data traffic flows and for applying quality of service treatments to the flows). Gai discloses wherein the admission profile is stored in a communicatively coupled remote device [see Gai, Col. 12, lines 25-50 and Col. 15, lines 59-64].

18. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Gai's teachings of identifying network data traffic flows and for applying quality of service treatments to the flows with the teachings of Lakshman-Barzilai, for the purpose of obtaining traffic policies to be applied to identified traffic flows [see Gai, Col. 4, lines 26-65]. By this rationale claim 5 is rejected.

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19. Regarding claim 6, Lakshman-Barzilai and Gai further discloses *wherein the communicatively coupled remote device is a bandwidth broker or other generic policy server* [see Gai, Figure 2, item 216]. The same motivation that was utilized in the combination of claim 5 applies equally as well to claim 6. By this rationale claim 6 is rejected.

20. Regarding claim 7, Lakshman-Barzilai and Gai further discloses *wherein the admission profile is available locally within the apparatus* [see Lakshman, Col. 15, line 13]. By this rationale claim 7 is rejected.

21. Regarding claim 8, Lakshman-Barzilai and Gai further discloses wherein the controller establishes an ingress profile in response to detecting an associated trigger event, wherein the ingress profile modifies the received data packet adhering to the filter criteria to denote a particular service level, in accordance with the admissions profile [see Barzilai, page 406, 2nd]. The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 8. By this rationale claim 8 is rejected.

22. Regarding claim 9, Lakshman-Barzilai and Gai further discloses wherein the controller removes ingress profiles when data packets adhering to the filter criteria are no longer received, liberating apparatus resources [see Barzilai, page 406, 2nd column, 4th paragraph]. The same motivation that was utilized in the combination of claims 1 and 8 applies equally as well to claim 9. By this rationale claim 9 is rejected.

23. Regarding claim 10, Lakshman-Barzilai and Gai further discloses *wherein the controller removes ingress profiles after a predetermined period of time, liberating apparatus resources* [Barzilai, page 410, 1st column, 1st paragraph-3rd paragraph]. The

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same motivation that was utilized in the combination of claims 1 and 8 applies equally as well to claim 10. By this rationale claim 10 is rejected.

24. Regarding claim 11, Lakshman-Barzilai and Gai further discloses *wherein the controller removes at least one of the filters in accordance with a network administration policy* [see Barzilai, page 410, 1st column, paragraph 1, Figure 9]. The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 11. By this rationale claim 11 is rejected.

25. Regarding claim 13, Lakshman-Barzilai and Gai further discloses a method for controlling provisions of differentiated service levels in a data network [see Barzilai, abstract], the method comprising (a) installing a filter on a network edge device to provide a trigger notification upon detecting data packets adhering to filter criteria, [see rejection of claim 1, supra] (b) determining whether a received data packet satisfies the filter criteria, the filter criteria corresponding to an admission policy related to the differentiated service levels [see rejection of claim 1, supra]; and (c) issuing a command by a bandwidth broker to a controller of the network edge device to dynamically install or remove a filter in response to determining whether the received data packets satisfies the filter criteria [see rejection of claim 1, supra]. The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 13. By this rationale claim 13 is rejected.

26. Regarding claim 14, Lakshman-Barzilai and Gai further discloses (d) marking the received data packets adhering to the filter criteria according to a subscribed service level (Barzilai teaches that the QOS manager tags the data path with a session handle

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to enable handling of data packets commensurate with their service requirements), [see Barzilai, page 398, 1st column, 1st paragraph]. The same motivation that was utilized in the combination of claims 1 and 13 applies equally as well to claim 14. By this rationale claim 14 is rejected.

27. Regarding claim 16, Lakshman-Barzilai, Gai discloses wherein the marking of the received data packet includes setting a logic value of a bit in a Type of Service (ToS) field of a header of the data packet [see Gai, Col. 3, lines 1-32, Col. 16, lines 21-48 and Col. 20, lines 25-31]. The same motivation that was utilized in the combination of claim 5 applies equally as well to claim 16. By this rationale claim 16 is rejected.

28. Regarding claim 17, Lakshman-Barzilai and Gai further discloses (e) identifying and marking the received data packets with routing information in accordance with the subscribed service level [see rejection of claim 14, supra]. The same motivation that was utilized in the combination of claims 1, 13 and 14 applies equally as well to claim 17. By this rationale claim 17 is rejected.

29. Regarding claim 18, Lakshman-Barzilai and Gai further discloses (f) placing the data packets in a proper format for transmission (Barzilai teaches TCP formats packets into a acceptable form for transmission to the network), [see Barzilai, page 407, 2nd column, 2nd paragraph]. The same motivation that was utilized in the combination of claims 1, 13, 14, and 17 applies equally as well to claim 18. By this rationale claim 18 is rejected.

30. Regarding claim 19, Lakshman-Barzilai, Gai discloses wherein the classifier marks a Type of Service (ToS) field of the received data packet to denote a level of

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service for transmission of the data packet [see Gai, Col. 3, lines 1-32, Col. 16, lines 21-48 and Col. 20, lines 25-31]. The same motivation that was utilized in the combination of claim 5 applies equally as well to claim 19. By this rationale claim 19 is rejected.

31. Regarding claim 20, Lakshman-Barzilai and Gai further discloses wherein the controller further dynamically controls access to at least one classifier profile in accordance with the admission profile [see Barzilai, page 411, 2nd column, 2nd paragraph]. The same motivation that was utilized in the combination of claims 1 and 13 applies equally as well to claim 20. By this rationale claim 20 is rejected.

32. Regarding claim 21, Lakshman-Barzilai and Gai further discloses an apparatus adapted to facilitate communications between a client device and a remote device [see rejection of claim 1, *supra*], comprising: filter means for controlling access to different service levels [see rejection of claim 1, *supra*]; means for classifying and marking one of the service levels associated with the received data packet in response to satisfying filter criteria associates with the filter means [see rejection of claim 1, *supra*]; and control means for dynamically creating and removing a portion of the filter means based at least in part on an admission profile [see rejection of claim 1, *supra*]. The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 21. By this rationale claim 21 is rejected.

33. Regarding claim 22, Lakshman-Barzilai, Gai further discloses *wherein the admissions profile is stored in a communicatively coupled remote device* [see Gai, Col. 12, lines 25-50]. The same motivation that was utilized in the combination of claim 5 applies equally as well to claim 22. By this rationale claim 22 is rejected.

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34. Regarding claim 23, Lakshman-Barzilai, Gai further discloses *wherein the communicatively coupled remote device is a bandwidth broker or other generic policy server* [see Gai, Figure 2, item 216]. The same motivation that was utilized in the combination of claim 5 applies equally as well to claim 23. By this rationale claim 23 is rejected.

35. Regarding claim 24, Lakshman-Barzilai and Gai further discloses *wherein the filter means comprises a plurality of filters* [see rejection of claims 1 and 21, supra]. By this rationale claim 24 is rejected.

36. Regarding claim 25, Lakshman-Barzilai and Gai further discloses *wherein the control means removes at least one of the filters in accordance with a network administration policy* [see Barzilai, page 400, 2nd column, 4th paragraph]. The same motivation that was utilized in the combination of claims 1 and 24 applies equally as well to claim 25. By this rationale claim 25 is rejected.

37. Claims 12 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman-Barzilai and Gai as applied to claims 1-11, 13, 14, and 16-25 above, and further in view of what was well known to the ordinary artisan in the networking art at the time the invention was made.

38. Regarding claims 12 and 26, Lakshman-Barzilai and Gai further discloses *wherein the control means removes at least one of the filters based, at least in part, on time-of-day* ((The inclusion of wherein the control means removes at least one of the filters based, at least in part, on time-of-day would have been obvious to one of ordinary

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skill in the networking art at the time the invention was made in view of the notoriously widely known and widely implementation of control means removes at least one of the filters based, at least in part, on time-of-day. The Examiner takes Official Notice (MPEP 2144.03) that "a network administrator having the capability to remove filters base on an expiration day or time of data is well known in the networking art at the time the invention. The Applicant is entitled to traverse the official notice according to MPEP 2144.03. However, MPEP 2144.03 further states, "See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, In re Boon, 169 USPQ 231, 234 states "as we held in Ahlert, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further 37 CFR 1.671©(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given little weight). By this rationale claims 12 and 26 are rejected.

Claim Rejections - 35 USC § 102

39. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

40. Claims 1-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Gai et al. (U.S. Pat. No. 6,651,101), hereinafter referred to as Gai.

41. Gai teaches a method and system for identifying specific traffic flows and for applying quality of service treatments to such flows. The disclosure of Gai reads upon the claimed invention, as detailed by exemplary claim 21. Gai disclosed a method and system adapted to facilitate communications between a client device and a remote device, comprising filter means (see Fig. 5; "Traffic management controller", column 10, lines 12-34) for controlling access to differentiated service levels (e.g., types of traffic such as best effort, as identified by a DS codepoint, wherein each traffic type has an associated "treatment" within a router or other intermediary device; see inter alia traffic templates, column 11, lines 14-56; column 13, lines 1-10, and in particular column 11, lines 31-43) (the system filters packets by dropping out of profile traffic, column 12, lines 25-31; column 15, lines 43-54) and placing packets into priority queues based on the packet DS codepoint, column 13, lines 15-37); means for classifying and marking one of the service levels associated with the received data packet (see Fig. 5, Classifier 516, see inter alia column 10, line 65) in response to satisfying filter criteria corresponding to an admission policy (i.e., traffic that is not out of profile and therefor not dropped, column 15, lines 43-54) related to differentiated service levels, and associated with the filter means; the means for classifying being communicatively coupled to the filter

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means (see Fig. 5, Classifier 516 connected to Traffic management controller 512); and control means for dynamically creating and removing a portion of the filter means based at least in part on an admission profile of the admission policy (e.g., different traffic templates are used or adjusted parameters within a template as used at different times of the day, column 12, lines 22-24).

Conclusion

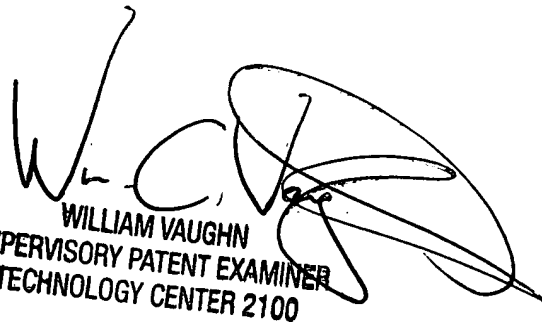
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph R. Maniwang whose telephone number is (571) 272-3928. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JM


WILLIAM VAUGHN
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TECHNOLOGY CENTER 2100